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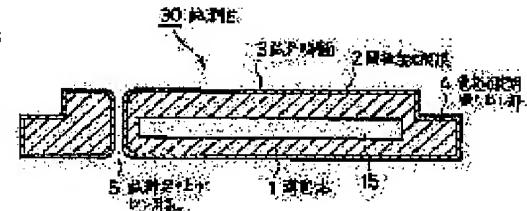
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(54) SAMPLE HOLDING DEVICE

(57)Abstract:

PURPOSE: To easily obtain an insulating film excellent in reproducibility to improve the breakdown voltage characteristic and the sample suction force by evenly forming it containing alumina as principal component over the entire surface of a conductor constituting a sample stage through electrochemical reaction in electrolyte.

CONSTITUTION: A sample suction face 3 of a conductor 1 is polished, and then, the conductor 1 is anodized. Then an anodic oxide coating 2 of hard and dense alumina, called hard oxide film, is evenly formed on the entire surface of the conductor 1. Subsequently, sealing is carried out to fill fine holes existing on the surface of the anodic oxide coating 2. This makes an insulating film excellent in breakdown voltage characteristic. Further, the thickness of the anodic oxide coating 2 is considerably larger than that of the ceramic spraying film. With the decrease in film thickness, the electrostatic capacitance is increased between a sample and the conductor surface, enhancing the suction force of the sample suction face.



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